
Bay Area Freeway Concept of Operations



Inventory of Freeway Operations

Deliverable No. 11

Prepared by:



Kimley-Horn
and Associates, Inc.

January 7, 2002

091598000
Copyright © 2002, Metropolitan Transportation Commission

TABLE OF CONTENTS

1. INTRODUCTION	1
1.1 AGENCIES CONTACTED	1
1.2 FREEWAY OPERATIONS COMPONENTS DISCUSSED	4
1.3 DEFINITION OF TERMS	5
1.4 INTERVIEW QUESTIONS	5
2. INVENTORY	6
2.1 AGENCY RESPONSES TO QUESTIONS	6
2.2 INVENTORY STATUS REPORT MATRICES	6
3. INVENTORY SUMMARY	14
4. NEXT STEPS	16

1. INTRODUCTION

The Bay Area Freeway Concept of Operations project will improve freeway operations policies, procedures, and practices, and build consensus on the roles, responsibilities, and resource needs for freeway operations. Freeway operations are the activities that directly affect the safety, travel time, travel route selection, time of travel, or mode of travel, of travelers using or planning to use the freeway network. Phase 1 of the Concept of Operations project will result in a Freeway Operations Strategy Report that recommends the future direction for freeway operations in the Bay Area, and an Action Plan that will guide future work on the Freeway Concept of Operations.

A component of Phase 1 is to prepare an inventory of the current policies, procedures, practices, and resources (staff and budget) involved in freeway operations for the three regional agencies (Caltrans, CHP, and MTC) and for other local Bay Area agencies that routinely participate in the Bay Area freeway operations, and document the resources that are currently available to the three regional agencies to undertake these activities. The process for completing the inventory is detailed in the Inventory Plan.

Previously, a preliminary inventory of freeway operations was completed to test the procedures of the Inventory Plan by collecting and documenting the current policies, procedures, practices, and resources for a limited number of freeway operations components. The preliminary inventory provided the opportunity to review the data collection process, the format for presenting the overall inventory, and recommend refinements to the process.

Next, a 75% Inventory was completed based on interviews with Caltrans, CHP, MTC and a number of local agencies including fire departments, police departments and local transportation agencies. The 75% Inventory documented policies, procedures, practices and issues relating to freeway operations identified by agencies during the interviews. The 75% Inventory recommended continuing with the same process until all of the targeted agencies had been interviewed.

This Final Inventory report documents a completion of the inventory process. The results of the Final Inventory consist of a series of matrices of the agencies surveyed and summaries of the different freeway operations components. The matrices show the status of each agency's policies and procedures relating to freeway operations. The rest of the report contains a brief synopsis of the inventory results and a discussion of next steps.

1.1 Agencies Contacted

Representatives from Caltrans, CHP, MTC, as well as from Alameda County, City of Concord, City of Santa Rosa, City of San Mateo, City of San Jose and American Medical Response (AMR) were contacted and interviewed during the Inventory. Names of the persons interviewed are below:

Caltrans –

Judy Chen, Caltrans District 4, 111 Grand Avenue, Oakland, CA. (510) 286-5167

Jim Richardson, Caltrans District 4, 111 Grand Avenue, Oakland, CA. (510) 286-6038

Cyrus Mashoodi, Caltrans District 4, 111 Grand Avenue, Oakland, CA. (510) 286-6911

Robert Gong, Caltrans District 4, 111 Grand Avenue, Oakland, CA. (510) 286-6911

CHP –

Janice Nance, CHP, 1551 Benecia Road, Vallejo, CA. (707) 648-4180

Diane Chupinski, CHP, 1551 Benecia Road, Vallejo, CA. (707) 648-4180

Lt. Mark Rasmussen, CHP, (707) 551-4180

Captain Fritz Eberly, CHP, Redwood City, CA. (650)-369-6261

MTC –

Jaime Maldonado, MTC, 101 Eighth Street, Oakland, CA. (510) 817-3207

Linda Lee, MTC, 101 Eighth Street, Oakland, CA. (510) 817-3205

Michael Berman, MTC, 101 Eighth Street, Oakland, CA. (510) 817-3281

Emily Van Wagner, MTC, 101 Eighth Street, Oakland, CA. (510) 817-3282

Alameda County Department of Public Works –

Clarence Louie, Alameda Public Works, 951 Turner Court, Hayward, CA. (510) 670-5514

Alameda County Sheriff's Department –

Linda Shelton, Alameda County Sheriff's Office, 4985 Broder Boulevard, Dublin, CA.
(925) 803-7803

Alameda County Coroner's Office –

Patrick Adams, Coroner's Bureau, 480 4th Street, Oakland, CA. (510) 268-7300

Alameda County Fire Department –

Mark Blanchard, Alameda County Fire Department, 835 East 14th Street, Suite 200 San Leandro, CA. (510) 618-3490

City of Concord Transportation Engineering Department –

John Templeton, Concord Transportation Engineering Department, 1455 Gasoline Alley, Concord, CA. (925) 671-3129

City of Concord Police Department –

Sergeant Bud Crosthwait, Concord Police Department, Concord, CA. (925) 671-3261

City of San Jose Department of Transportation –

Jim Helmer, City of San Jose Department of Transportation, 4 North 2nd, 10th Floor, San Jose, CA

City of San Jose Police Department –

Lt. Richard Fairhurst, San Jose Police Department, 201 W. Mission St., San Jose, CA.
(408) 277-4342

City of San Jose Fire Department –

Capt. Keith Keesling, City of San Jose Fire Department, 4 North 2nd, 11th Floor, San Jose, CA
(408) 277-3078

City of Santa Rosa Department of Public Works –

Gene Benton, Santa Rosa Public Works Department, 69 Stoney Circle, Santa Rosa CA.
(707) 543-3815

City of Santa Rosa Fire Department –

Mark Basque, Santa Rosa Fire Department, 69 Stoney Circle, Santa Rosa CA. (707) 543-3532

City of Santa Rosa Police Department–

Brad Marsh, Santa Rosa Police Department, 965 Sonoma Avenue, Santa Rosa CA. (707) 543-3639

City of San Mateo Department of Public Works –

Mike Vroman, San Mateo Public Works Department, 330 w. 20th Avenue, San Mateo, CA.
(650) 522-7315

City of San Mateo Police Department –

Mike Callagy, San Mateo Police Department, 330 W. 20th Avenue, San Mateo, CA.
(650) 522-7710

City of San Mateo Fire Department –

Ron Meyers, San Mateo Fire Department, 1900 O'Farrell St. Suite 140, San Mateo, CA
(650) 522-7900

American Medical Response –

Dennis Jackson, AMR, (510) 895-1631

Persons participating in the interviews were contacted to set an appointment for the interview. During the phone call, the general purpose and objectives of the inventory were discussed, along with the desire to obtain written policies and procedures. On the day of the interview, written policies and procedures were collected, if available.

Lieutenant Rasmussen and Captain Jackson of CHP and Dennis Jackson of AMR were added to the Inventory interviews upon request of the Executive Committee. These interviews were completed after the August version of the Final Inventory and have been used to update this version of the Final Inventory.

1.2 Freeway Operations Components Discussed

There are 23 freeway operations components identified in the Inventory Plan. During the inventory, Kimley-Horn inventoried all of the following components:

- District 4 Traffic Management Center (TMC);
- CHP Dispatch Center;
- TravInfo[®] Traveler Information Center (TIC);
- Closed Circuit Television (CCTV);
- Vehicle Detection System;
- Changeable Message Signs (CMS);
- Highway Advisory Radio (HAR);
- Local Agency Subsystems (SMART Corridors);
- Metering-Ramp and Mainline;
- Ramp-Arterial Operations;
- Shoulder Utilization;
- HOV Facilities;
- Ramp Closures;
- Incidents;
- Special Events;
- Collisions;
- Work Zones;
- Diversion Plans;
- Freeway Service Patrol;
- Call Box Program;
- Information Service Providers;
- Internet, Personal Devices, and Kiosks; and
- Radio/TV/Media

1.3 Definition of Terms

For this project, policies are defined as written rules or guidelines that define a course of action. Policies are usually formal in nature and mandated by an agency or authority. Procedures are similar to policies in that they are written guidelines but they are usually less formal. Policies and procedures are grouped together in the Inventory. Practices are undocumented actions that are commonly performed by agencies under recurring circumstances. For example, many local transportation agencies follow undocumented practices when assisting Caltrans or CHP in response to a freeway incident.

1.4 Interview Questions

Interview questions were developed by Kimley-Horn based on the sample questions contained in the Inventory Plan. Questions were tailored to individual agencies in preparation for the interviews.

2. INVENTORY

2.1 Agency Responses to Questions

Inventory interviews were conducted between March 13 and December 3, 2001.

During the interviews, a primary objective was to determine if the agency had written policies or procedures for specific freeway operations components. If there were no written policies or procedures, the interviewer determined whether unwritten practices were followed, or if the agency thought that policies or procedures were needed, or if the operations component did not apply to the agency.

2.2 Inventory Status Report Matrices

A series of matrices were prepared for the agencies that were interviewed and all of the freeway operations components identified in the Inventory Plan. Based on the results of the interviews, the matrices were used to map documented (written) policies or procedures, undocumented practices, procedures under development, and needed policies to the 23 freeway operations components for each agency.

Table 1 through Table 4 show the Inventory Status Report Matrices. For each matrix, cells containing a symbol indicate the freeway operations components that correspond to the policy, procedure or practice. The symbol type indicates the status of that policy, procedure or practice (see legend). Cells in the matrix that are completely blank identify operational components that do not apply to the policy, procedure or practice. Note that for some of the agencies, there are operational components without any corresponding policy, procedure or practice. In these cases, the operational component does not apply to the agency. It should be noted that in some instances, agencies had policies, procedures or undocumented practices in place but identified the need for more.

Table 1 through Table 4

Remove this sheet and replace with Tables 1 through Table 4. MTCConOp11.xls

Table 1 – page 1 of 2

Remove this sheet and replace with Tables 1 through Table 4. MTCConOp11.xls

Table 1 Page 2 of 2

Remove this sheet and replace with Tables 1 through Table 4. MTCConOp11.xls

Table 2

Remove this sheet and replace with Tables 1 through Table 4. MTCConOp11.xls

Table 3

Remove this sheet and replace with Tables 1 through Table 4. MTCConOp11.xls

Table 4 Page 1 of 3

Remove this sheet and replace with Tables 1 through Table 4. MTCConOp11.xls

Table 4 Page 2 of 3

Remove this sheet and replace with Tables 1 through Table 4. MTCConOp11.xls

Table 4 Page 3 of 3

3. INVENTORY SUMMARY

The inventory revealed that many of the agencies had written policies and procedures, as well as unwritten practices for the specific freeway operations components. In general, the three regional agencies had mainly written policies and procedures while the local agencies relied more on undocumented practice. Written policies and procedures were also in various states of detail and completeness; however, some were still in draft form or under development and were not available during the interviews. Also, many of the agencies indicated that there were some areas of freeway operations where they did not have an existing written policy in place but they felt a formal policy was needed. These areas have been identified in Tables 1 through 4.

Table 5 summarizes the primary role of each agency or entity in freeway operations as indicated by the agencies during their Inventory interviews. This table provides a snap shot how the agencies view their respective roles in freeway operations and will be a useful reference for the development of the Freeway Operations Strategy Report.

Table 5 – Agencies’ Roles in Freeway Operations

Agency	Role
Caltrans	Caltrans is the primary agency responsible for managing traffic on the freeways. They operate and manage the TMC in Oakland and use a number of field devices such as CCTV, CMS, HAR, vehicle detection stations and ramp meters to help manage traffic. Caltrans will also assist CHP with traffic management during incidents when requested.
MTC	MTC’s primary role in freeway operations is to gather and provide traveler information to the public. They also provide financing, contract management, project management and overall coordination of the FSP and call box programs.
CHP	CHP is incident commander on the freeways and is responsible for the safety of the public and for keeping traffic moving. CHP also provides CAD incident data to the public and other agencies. CHP is responsible for central dispatching of the FSP and call box program.
Local Transportation Agency	Local transportation agencies are sometimes called on by CHP to help manage traffic in the field. Local transportation agencies also devise diversion plans for vehicles moving off of freeways onto local streets.
Local Police	All crime scenes on freeways are under local police jurisdiction. CHP will sometimes call on local police for assistance with incident management. If local police is first to the scene, they act as incident commander until CHP arrives.
Local Fire	Local fire departments have control over the medical scene at incidents. If they are first to the scene they will contact CHP. While CHP is incident commander, fire departments are often relied on for their expertise in certain areas.
Ambulance Provider (AMR)	AMR provides for the safety of the patient and safety at the scene while providing medical transport and pre-hospital care.

During the inventory process, several institutional issues were identified. Many of the institutional issues are associated with the need for better interagency coordination and cooperation and a clearer definition of the roles and responsibilities of the different agencies. The Inventory also uncovered a number of technical issues, many of which relate to the operations and maintenance of the TOS field components and the TMC architecture. The institutional and technical issues are addressed in greater detail in the Key Institutional and Technical Issues report.

4. NEXT STEPS

Information contained in the Final Inventory will be used as input into the Key Institutional and Technical Issues. This task involves identifying, describing and prioritizing institutional and technical issues that affect freeway operations in the Bay Area.

Remaining tasks in the Freeway Concept of Operations Project are the development of Freeway Operations Strategies and an Action Plan. The Freeway Operations Strategies will summarize the key findings and conclusions from this project and define priorities and a process for how to achieve an effective freeway management program in the Bay Area. An emphasis will be placed on improving policies and procedures for the Freeway Management Program. The Action Plan will describe in detail the steps needed to implement the strategies.